EXHIBIT 173 REDACTED

Comms Doc: Header Bidding - Work In Progress August 2016

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For questions related to Exchange Bidding pilot: "We're continuing to test exchange bidding in Dynamic Allocation and publishers are excited about this product - we currently have over a hundred publishers on the waitlist for our beta phase. During this process, we're refining the product, taking our publishers' and partners' feedback into account. Our goal is to give publishers the features, flexibility and transparency they're asking for while helping them grow their businesses. We're really happy with the results so far and look forward to adding more exchanges and partners in the coming quarters." -Google spokesperson

- Direct reporters to this blog post from April 2016 about Exchange Bidding in Dynamic Allocation announcement: <u>Improving yield, speed and control with DoubleClick for Publishers First Look</u> and exchange bidding
- Shareable stats:
 - Exchange bidding pilot program partners include
 - We currently have over a hundred publishers on the waitlist for our beta phase of the Exchange Bidding pilot.
- Third party endorsements/client quotes:
 - o no of the publishers participating in the exchange bidding alpha, recently said publicly that Dynamic Allocation is a "great initiative."

For questions related to header bidding damaging Google's business: "We don't see header bidding as a threat to our business. Not at all. Header Bidding is a tool to help publishers increase their investment in programmatic and make 100% of their inventory available to advertisers. We think this is a good sign for the industry and the growth of our business as it reinforces the value of programmatic for the publisher and the advertiser. In fact, our programmatic business is on fire - In 2015, we doubled the number of advertisers using our programmatic solutions - our mobile and video impressions grew more than 3.5X in 2015.. We now work with 85% of AdAge's top 100 advertisers." - Google spokesperson

- Direct reporters to reports like State of Play and Programmatic Direct.
- Stats you can share about <u>Programmatic Momentum</u>:



Background on our strategy - not to be shared

The Open Auction tends to have a large price gap between what a buyer bids and what they pay.
 In fact, we've observed more than a price gap between bid and closing prices in many cases (<u>DoubleClick Publisher Blog Post</u>)".

Q: Why is header bidding good for publishers?

A: Header bidding and exchange bidding both allow publishers to get more accurate, realtime pricing for their inventory by letting all possible auctions to occur before selecting the highest paying ad.

Header Bidding solves adds value for publishers in three ways:

- 1. Allows publishers to make 100% of their inventory available in programmatic exchanges
- 2. Increases pricing pressure on the incumbent ad server exchange so they can increase the yield for every impression
- 3. Since all exchanges are "hit" at the same time, publishers feel like they are getting the best price from the market on all impressions.

Q: Why is Google investing in a different solution if Header Bidding is valuable for clients?

A: We believe that header bidding isn't a viable long-term option for the market because publishers still have challenges. So far, we've seen that exchange bidding can achieve the same or better results as header bidding for publishers with server side technology (publishers leverage data across servers or "server-to-server") to minimize latency and remove data and processing costs from users.

Q: How does exchange bidding solve for the challenges that header bidding creates?

A: Exchange bidding and header bidding both address the same fundamental market need to give publishers options to better maximize the yield they way to derive a real-time price from all buyer demand on a per-query basis.

There are major downsides and risks that come with header bidding because it requires the use of client-side code. This includes burdening users' devices with additional latency, data costs, and excess processing.

- Exchange bidding is not as full featured as Header Bidding is today:
 - HB can access linked units and all ad delivery types that the ad server is capable of.
 - HB can also be used for guaranteed deals at the top of a publisher's stack, and therefore has the ability to see and win against 100% of the publishers audience and placements if set up correctly.
 - HB tied to KVP's means that a publisher has better insights into bid values by buyer by exchange.

Q: Why is header bidding such an important solution for the market today?

A: Header Bidding was the next logical step after RTB and it provides benefits for publishers in terms of helping them to get the best price the market-at-large has to offer. This is important because each exchange has incremental demand of some kind, whether it is an additional buyer, a different bid pattern from same buyers on the same inventory on

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different exchanges, or different yield optimization algorithms adjusting floors. From a financial standpoint in the "backfill" space, this is a winning equation for pubs. In today's modern market, Header Bidding can be used to smash the waterfall even further, as innovation has allowed for Publishers to capture programmatic audience and buy-side-decisioned guarantees on inventory that would have normally been consumed by the publishers local line item reservations. Now sales teams at pubs have a new channel and a new offering in the premium category, or in their sold out inventory types such as video. For buyers, especially programmatic ones, the technology can be a powerful addition to the quiver - allowing them to see 100% of a publisher's audience and placements. This allows those people who are searching for a needle in a haystack to find more needles - just like DFL.

Q: How does Exchange Bidding help operational costs?

A::Exchange bidding lowers operational complexity for publishers because they don't need to change and add code on a their website or app in order to manage header tags. Further, exchange bidding removes the need to manage multiple (sometimes tens of thousands of) line-items with header bidding implementations and simplifies billing and payments, which allows for much easier addition of demand partners.

Q: How is Google's DFP First Look different from exchange bidding?

- First Look and exchange bidding are similar in that both features allow publishers to maximize their yield, and improve an advertisers access to inventory
- First Look makes it easy for publishers to capture new revenue from buyers on the DoubleClick Ad Exchange.
- Exchange Bidding gives publishers the ability to manage yield between multiple exchanges and supply-side platforms (SSPs).

Q: What is dynamic allocation?

- Dynamic allocation is a tool that allows publishers to know that they are getting the most for their inventory.
- This means that Google's Ad Exchange gets to match or beat the CPM rate for the campaign.
- It also means the publisher is not necessarily getting the highest price that all advertising demand sources might pay.

Q: Is header bidding damaging Google's business? Is Google's programmatic business at risk?

A: No, we don't see header bidding as a threat to our business. Not at all. Header Bidding is a tool to help publishers increase their investment in programmatic and make 100% of their inventory available to advertisers. We think this is a good sign for the industry and the growth of our business as it reinforces the value of programmatic for the publisher and the advertiser. In fact, our programmatic business is on fire - In 2015, we doubled the number of advertisers using our programmatic solutions - our mobile and video impressions grew more than 3.5X in 2015; and at the same time we doubled the number

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of advertisers using our programmatic solutions. We now work with 85% of AdAge's top 100 advertisers.

Q: AdExchanger reported that many programmatic-focused publishers who use header bidding saw Google's share of revenue decline from 90% to just 40%-50%. Isn't this proof that header bidding is in fact hurting Google's ad business?

[area for future proof points]

Q: Which publishers are using I	Exchange Bidding?	Are they seeing	success?
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A: There are nearly a dozen publishers participating in our exchange bidding alpha including and alpha.

To share on background only: We expect to graduate to beta in early Q4.

Q: If exchange bidding is so valuable to publishers why is Google just now testing this solution?

A: Years ago there was a consensus among the industry that there would be a single exchange that all inventory and demand would flow through. This market hope has not come to pass, and as such each exchange has differentiation along multiple axis that allow them all to exist independently. However, the lack of a centralized "market of truth" has also had its drawbacks. Independent exchanges linked through tags has led to a morass of circulating inventory through the exchanges, with buyers thinking that they're buying one thing and getting another, or sellers not getting the full value of their media due to the intricacy and inefficiency of the setups.

Therefore, a few things have led to this point. First off, we were wrong about the idea that the market would come together around a single exchange. Second, we had a chance to watch the market develop around header tags, and while the tech is crap, the market point it proved - programmatic first - is real, relevant and accelerated our strategy which was already moving this direction, evidenced by the consolidation of DFP and AdX and the deployment of things like DFL. Last but not least, we wanted to make sure we got this right, and captured the benefits of header tags without the risks.

Google is invested in the long term health of the advertising ecosystem. When we looked at header bidding solutions we decided that the additional latency it created and the burden it put on users devices was not a sustainable solution. So while we believe there is an opportunity to achieve a better real-time price we've been investing in creating server side solutions instead.

We started over a year ago with DoubleClick for Publishers First Look which is seeing great success. (success metrics here)

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